

SNEGIREV, Yu.D., kand. tekhn. nauk

Reasons causing the failure of concrete linings in mine shafts. Shakht. stroi. 8 no.2:8-9 F '64. (MIRA 17:3)

1. Shakhtinskiy filial Novochoerkasskogo politekhnicheskogo instituta imeni Sergo Ordzhonikidze.

SNEGIREV, Yu.D.; VYAL'TSEV, M.M.; LUNOV, E.P.

Investigating the durability of monolithic concrete shaft
lining in mines of the Rostovugol' Combine. Trudy NPI
140:29-43 '63. (MIRA 17:9)

SNEGIREV, Yu.D., kand. tekhn. nauk; LUNOV, E.P., kand. tekhn. nauk; VYAL'TSEV,
M.M., inzh.

Investigating conditions of shaft lining with reinforced-concrete tubing
in coal mines of the Rostovugol' Combine. Shakht. stroi. 9 no.10:12-15
0 '65. (MIRA 18:9)

1. Shakhtinskiy filial Novocherkasskogo politekhnicheskogo instituta.

SNEGIREVA, G.K., inzh.

Let's expedite the introduction of new equipment for the preparation
of asbestos cement. Stroi. mat. 7 no.3:11-13 Mr '61. (MIRA 14:4)
(Asbestos cement)

SNEGIREVA, I.

Inquiry office of "Grazhdanskaia Aviatsiia." Grazhd. av.
20 no.9:28 S '63. (MIRA 16:8)

(Airlines—Employees)

L 18959-63

EPR/EWP(j)/EPF(c)/EWT(m)/BDS AFFTC/ASD Ps-4/Pc-4/Pr-4

RM/WW/MAY

ACCESSION NR: AP3006537

S/0191/63/000/009/0030/0033 81

AUTHORS: Trostyanskaya, Ye. B.; Kazanskiy, Yu. N.; Skorova, A. V.; Poymanov,
A. M.; Snegireva, I. A.

TITLE: Determining the quality of glass cloth and glass roving sizing

SOURCE: Plasticheskiye massy*, no. 9, 1963, 30-33

TOPIC TAGS: glass cloth sizing, glass, glass roving sizing, fiberglass water resistance

ABSTRACT: A method was worked out for evaluating ¹⁵ACM-3 sizing and conditions were recommended for sizing FN fiberglass with ACM-3. The amine number of the sizing film was determined by titration with HCl, readings being taken in the first couple minutes of the titration. The continuity of the sizing film was determined by electrically measuring the amount of moisture that would evaporate through the film, using an IDM-14C-meter, ALM2 voltmeter, and KVT1/EN self-recording potentiometer. Orig. art. has: 7 figures, 1 equation.

Card

1/2

SNIGIREVA, K. B.

USSR / Zooparasitology - Acarina and insect-vectors of G
disease pathogens

Abs Jour: Ref Zhur - Biol., No 7, 1958, 29129

Author : Dubinin, V.B., Snegireva, K.B.

Inst : Not given

Title : Turbinoptes Strandtwanni Boyd Acarina and
Their Structural Characteristics. (Kleshchi
Turbinoptes strandtwanni Boyd i osobennosti ikh
stroeniya).

Orig Pub: Zool. zh., 1957, 36, No 2, 204-213

Abstract: A comparative-anatomical study of feather
acarina T. strandtmanni (subfamily Myialgesinae),
found in the nasal cavity of common sea-gulls
(Larus ridibundus), and characteristics of
their biology and structure, which were developed

Card 1/2

3 NEIRA 111 111

MIRNITSKAYA, R.L.; SNIGIREVA, O.V.; SAMSONOVA, N.F.; PUZHY, O.V.

Distribution of opisthorchiasis in Chernigov Province. Med.paraz.
i paraz.bol. 27 no.1:110 Ja-F '58. (MIRA 11:4)

1. Iz parazitologicheskogo otdela Chernigovskoy oblastnoy sanitarno-
epidemiologicheskoy stantsii.
(CHERNIGOV PROVINCE—DISTOMATOSIS)

GUREVICH, B.L.; SNEGIREVA, O.V.; SHALYA, A.A.

Gas potential of the Crimean Steppes and Sivash region. Gaz.prom.

4 no.8:3-8 Ag '59.

(MIRA 12:11)

(Crimea--Gas, Natural--Geology)

KOTEL'NIKOV, D.D.; KOSHELEVA, L.A.; SNEGIREVA, O.V.

Composition and genesis of clay minerals in sediments of the
middle and upper Jurassic of the Sudak-Koktebel' folded zone
in the eastern Crimea. Trudy VNIIGAZ no.7:48-58 '59.
(MIRA 13:5)

(Crimea--Clay)

ZHIVAGO, N.V.; SNEGIREVA, O.V.

Age of volcanic rocks in wells drilled in the Aleksandrovskaia
area (northern border of the western Kuban trough). Trudy
VNIIGAZ no.10:104-108 '60. (MIRA 13:10)
(Kuban--Rocks, Igneous)

DOBROVOL'SKAYA, T.I.; SNEGIREVA, O.V.

Conglomerates of the Bitak series of the Crimea. Dokl. AN SSSR
143 no.6:1417-1420 Ap '62. (MIRA 15'4)

1. Institut mineral'nykh resursov AN USSR i Vsesoyuznyy
nauchno-issledovatel'skiy institut prirodnogo gaza. Predstavleno
akademikom V.S.Sobolevym.
(Crimea---Conglomerate)

VASIL'YEV, V.G.; YEROFEYEV, N.S.; ANIKSYEVA, I.B.; YELIN, N.D.;
YELOVNIKOV, S.I.; KOLOTUSHKINA, A.F.; L'VOV, M.S.;
MATVIYEVSKAYA, N.D.; MIRONCHEV, Yu.P.; MODELEVSKIY, M.Sh.;
MURATOVA, A.T.; MUSTAFINOV, R.A.; ROZHKOV, E.L.; SNEGIREVA,
O.V.; STAROSEL'SKIY, V.I.; SYTNIK, N.A.; NEVEL'SHTEYN, V.I.,
ved. red.; YASHCHURZHINSKAYA, A.B., tekhn. red.

[Prospecting for gas fields in the U.S.S.R. during four
years of the seven-year plan] Poiski i razvedka gazovykh
mestorozhdenii v SSSR za chetyre goda semiletki. Leningrad,
Gostoptekhnizdat, 1963. 171 p. (MIRA 16:8)
(Gas, Natural--Geology)

SNEGIREVA, O.V.; KAMENETSKIY, A.Ye.

Basic characteristics of geological development in the Crimea.
Trudy VNIIGAZ no. 25:14-30 '65. (MIRA 18:12)

1. LYUBARSKIY, K. A., SNEGIREVA, R. V.
2. USSR (600)
4. Meteors
7. Photographic observations of meteors carried out in Simferopol in the summer of 1952. K. A. Lyubarskiy, R. V. Snegireva. Astron. tsir., No. 131, 1952.
9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

1. A. YA. GOLDBERG, T. D. SHALAEVA, P. A. TESNER
2. USSR (600)
4. Carbohydrates in the Body
7. Use of carbohydrates in the brain during its various physiological and pathological states. Nauch. biul. Len. un. no. 28. 1951.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

SNEGIREVA T. D.

V. Investigation of the catalytic activity of carbon in hydrocarbon transformation processes. E. Ya. Robnovich, T. D. Snegireva, and P. A. Tesner. *Trudy Vsesoyuz. Nauch. Issledovatel. Inst. Prirod. Gazov. Pererabotka i Transport Prirod. Gazov* 1953, 71-97; *Referat. Zhur., Khim.* 1955, No. 302. The catalytic activity of several C-black specimens, activated C black (I), and Al silicate catalyst (II) in reactions of thermal decomposition, dehydrogenation, and cyclization of hydrocarbons was tested in a glass tube by the continuous-flow method. In these tests was determined the ratio of the sum of the decomposition products in mg./hr. for each sq.m. of surface (sp. activity) to the wt. of C formed on the catalyst. It was found that the C surface of I and of the C obtained in thermal decomposition of hydrocarbons catalyze the break of C-C and C-H bonds and cyclization. In the cracking of paraffinic hydrocarbons at 515° and vol. velocities of 0.4 ml. of catalyst per hr. the sp. activity of channel, acetylene, and thermal C black having sp. areas of 16, 65, and 15 sq.m./g., resp., was 4.5, 3.4, and 5.6 mg./sq.m. hr. The extent of decomposition in the presence of C black is 3-4.5 times as great as without it. The sp. surface and activity of channel C black used in cracking paraffinic hydrocarbons at 500° was only slightly affected by the C deposited on it. After 135 hrs. of operation when 28.5% C was deposited on it, the activity of the channel C black differed only slightly from its initial activity. The temp. coefficient for the range 480-520° was 1.25-1.28. The apparent energy of activation was 27.7 kcal./mole. During cracking of petroleum gas oil at 515° the amt. of C black formed on the catalyst rose sharply, and after 119 hrs. it amounted to 140% of the wt. of the C black. The sp. surface was thereby

lowered to 3 sq.m./g., and this entailed a loss of the cracking activity. A comparison was made between the cracking of kerosene and gas-oil fractions on channel C black coated with pptd. C. on II, and on I with 80, 180, and 650 sq.m./g. sp. surfaces. The activity of II in vol. velocities was 10-20 times as high as that of C black, and sp. activity was 2-6 times as high. The amt. of C pptd. per unit surface in 1 hr. at 520, 514, and 480° on II was 3.8, 4.2, and 6 times as high, resp., as on C black. The relative activity of I was 12 times as high as the activity of C black and 1.3 times as high as that of II. In 22 hrs. the wt. of I increases by 24% and the vol. of microspores decreased to 1/3 the original value.

The gas contained 15-20% H₂. Dehydrogenation was studied on Decalin at 520-550°. On I dehydrogenation proceeded vigorously, and the formation of C was not observed. On C black having 1/3 the surface, the reaction proceeded slower. Cyclization was studied on octane and an octane-octene fraction at 520-550° on I. At 500° and vol. velocity 0.7 ml./ml. hr. the catalyze from octane contained 8-10% aromatics and 10-12% olefins. The octane-octene fraction gave a catalyze contg. 43.5% substances that could be sulfonated, had a n 1.4117 and iodine no. 28. Best results were illustrated by a product contg. substances capable of being sulfonated 70%, olefins 9%, and having a n_D 1.4614. Cyclization caused intensive deposition of C. The order of activity of the catalysts studied was I, II, C black. For cracking, C black was unsuitable. The decline of its activity is attributable to a decrease in its sp. surface area.

Mt. Hosh

1. ROVINOVICH, Ye. Ya.: SNIGIREVA, T. D.: TESNER, P. A.
2. USSR (600)
4. Cracking Process
7. Specific catalytic activity of carbon. Dokl.AN SSSR, 88, no. 1, 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

TESNER, P.A.; SNEGIREVA, T.D.

Effect of atmospheric conditions on the production of furnace
black. Gaz.prom no.2:33-37 F '56. (MIRA 10:1)
(Carbon black)

TESNER, P.A.; SNEGIREVA, T.D.

Thermodynamic analysis of the effect of atmospheric conditions of
the production of furnace black. Trudy VNIIGAZ no.1:86-99 '57.
(Carbon black) (Atmospheric temperature) (MIRA 11:1)

SNEGIREVA, T.D.

Kinetics of carbon black oxidation. Trudy VNIIGAZ no.6:74-80
'59. (MIRA 12:10)

(Carbon black)

SNEGIREVA, T.D.; TESNER, P.A.

Kinetics of carbon black oxidation. Trudy VNIIGAZ no.12:91-102
'61. (MIRA 15:1)
(Carbon black) (Oxidation)

SNEGIREVA, V.V.; TAREYEV, Ye.M., professor, deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR, zaveduyushchiy.

On the occasion of the 20th anniversary of K.M.Pavlinov's death. Sov.med. 17 no.6:44-45 Je '53. (MLRA 6:6)

1. Akademiya meditsinskikh nauk SSSR (for Tareyev). 2. Kafedra propedevticheskoy i gospi'tal'noy terapii sanitarno-gigiyenicheskogo fakul'teta Moskovskogo ordena Lenina meditsinskogo instituta (for Snegireva and Tareyev). (Pavlinov, Konstantin Mikhailovich, 1845-1933)

ALEKSEYEVA, O.G.; BIBKOVA, A.F.; VYALOVA, N.A.; IVANOV, A.Ye.; KRAYEVSKIY, N.A.; KURSHAKOV, N.A.; PARAMONOVA, N.V.; PETRUSHKOV, V.N.;
SNEGIREVA, V.V.; STUDENIKINA, L.A.; SHTUKKENBERG, Yu.M.;
SHULYATIKOVA, A.Ya.; LANDAU-TYLKINA, S.P., red.; YAKOVIEVA, N.A.,
tekhn. red.

[A case of acute radiation sickness in man] Sluchai ostroi luchevoi bolezni u cheloveka. Moskva, Medgiz, 1962. 149 p.
(MIRA 16:2)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Kurashkov).

(RADIATION SICKNESS)

SNEGIREVA, V. V., N. A.

PHASE I BOOK EXPLOITATION

SOV/6344

7

Alekseyeva, O. G., A. P. Bibikova, N. A. Vyalova, A. Ye. Ivanov, N. A. Krayevskiy, N. A. Kurshakov, N. V. Paramonova, V. N. Petushkov, V. V. Snegireva, L. A. Studenikina, Yu. M. Shtukkenberg, and A. Ya. Shulyatikova

Sluchay ostroy luchevoy bolezni u cheloveka (A Case of Acute Radiation Sickness in Man). Moscow, Medgiz, 1962. 149 p. 10,000 copies printed.

Ed. (Title page): N. A. Kurshakov, Corresponding Member Academy of Medical Sciences USSR, Professor; Ed.: S. P. Landau-Tylkina; Tech. Ed.: N. A. Yakovleva.

PURPOSE: This monograph is intended for physicians and biologists.

COVERAGE: This book describes an actual case of acute radiation sickness in its severe form. It describes in detail clinical symptoms, changes in biochemical indexes, morphological changes in the nervous system, and the distribution of depth doses and energy absorption.

Card 1/31

М.И. ПЕТРОВА, ...

[Музей естественной истории Ленинграда; краткий путеводитель]. Ленинград,
Медицина, 1964. 12 с. (МИА 18:1)

1. Ленинград. Музей естественной истории.

SAVEGON, K.

PHASE I BOOK EXPLOITATION

SOV/5975

International Institute of Welding

XII kongress Mezhdunarodnogo instituta svarki, 29 iyunya - 5 iyulya 1959 v g.
Opatii (Twelfth Annual Assembly of the International Institute of Welding,
Opatija, June 29 - July 5, 1959) Moscow, Mashgiz, 1961. 359 p. 3000
copies printed.

Sponsoring Agency: Natsional'nyy komitet SSSR po svarke.

Ed. (Title page): G. A. Maslov, Docent; Translated from English, French,
and Serbo-Croatian by N. S. Aborenkova, K. N. Belyayev, E. P. Bogacheva,
L. A. Borisova, K. V. Zvegintseva, V. S. Minavichev, and M. M. Shelechnik;
Managing Ed. for Literature on the Hot-Working of Metals: S. Ya. Golovin,
Engineer.

PURPOSE: This collection of articles is intended for welding specialists and
the technical personnel of various production and repair shops.

Card 1/1

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SOV/5975

Twelfth Annual Assembly (Cont.)

COVERAGE: The collection contains abridged reports presented and discussed at the Twelfth Annual Assembly of the International Institute of Welding. Reports deal with problems of welding and related processes used in repair work, repair techniques, and the problems arising in connection with the nature of the base and filler materials. Examples of repairing various parts are given, and the organization of repair operations in workshops and under field conditions is discussed. Economic aspects of welding and related processes as used in repair work are analyzed. No personalities are mentioned. There are no references.

TABLE OF CONTENTS: [Only Soviet and Soviet-bloc reports are given here]

Foreword

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PART I. THE STUDY OF REPAIR-WORK TECHNIQUES
(PROCESSES, METHODS, PREPARATION, HEATING, AND
OTHER TYPES OF PROCESSING CONTROL)

Myuntsner, L. (Czechoslovakia). Welding of Broken Crankshafts

36

Card 2/9

SOV/5975

Twelfth Annual Assembly (Cont.)

Tesar, A., and Yu. Lombardini (Czechoslovakia). Isothermal and Ultracold Welding of Hardenable Steels 42

Paton, B. Ye., G. Z. Voloshkevich, P. A. Didko, Yu. A. Merzibogen, A. M. Makara, P. I. Sevbo, and D. O. Rozenberg (USSR). Electroslag Welding in Repairing Heavy Machines and Mechanisms 49

Frumin, I. I., A. Ye. Asula, L. M. Gidman, G. V. Ksendzyk, V. A. Lapchenko, Ye. I. Leynachuk, Ye. N. Morozovskaya, I. K. Polnodnaya, V. P. Sabbotovski, and F. A. Khomus'ko (USSR). Automatic Wear-Resistant Submerged-Arc Surfacing 60

Snegon, K. (Poland). Restoration of Rolling-Mill Rolls, Crane Rollers, Forging Dies, and Shears by Arc Welding 72

Card 3/9

SNEGOTSKIY, N.A.

Methodology for X-ray study of the motor function of the gallbladder.
Trudy 1-go MMI 39:219-221 '65. (MIRA 18:9)

SNEGOV, A.

Walter Reuther is a zealous servant of monopolies. Sov.prof-
soiuzy 8 no.2:62-63 Ja '60. (MIRA 13:2)
(Reuther, Walter Philip, 1907-)

SHESTAKOV, V.A., kand.tekhn.nauk; SNEGOV, A.I., gornyy inzh.;
BONDAREV, K.D., gornyy inzh.; ALIYEV, A.A., gornyy inzh.;
AGZAMOV, K.Sh., gornyy inzh.; ABRAMOV, N.P.

Using deep boreholes for breaking ore in the Sumsar Mine.
Gor. zhur. no.12:8-10 D '62. (MIRA 15:11)

1. Institut gornogo dela i metallurgii AN Kirgizskoy
SSR (for Shestakov, Snegov, Bondarev, Aliyev, Agzamov).
2. Sumsarskiy rudnik (for Abramov).
(Sumsar region--Boring--Labor productivity)
(Blasting)

SNEDOV, .

Snegov, B. - "Cotton picking by machine", (Kolkhoz No. 2 imeni Frunze, Yangi-Yul'skiy Rayon, Tasnakent Oblast, outline), Zvezda Vostoka, 1947, No. 2, p. 96-109.

SO: 1-4110, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 19, 1949).

SANNIKOV, M.I., kand. sel'khoz. nauk spetsialist-ovtsevod;
SNEGOV, V.V., zasl. zootekhnik RSFSR, Laureat
Gosudarstvennoy premii, OKULICHEV, G.A., kand. sel'-
khoz. nauk, retsenzent; VASIL'YEV, N.A., kand. sel'-
khoz. nauk, retsenzent; BYRDINA, A.S., red.

[Production of thin-fiber wool at the "Soviet Fleece"
Breeding Station] Proizvodstvo tonkoi shersti v plemza-
vode "Sovetskoe runo." Moskva, Kolos, 1965. 174 p.
(MIRA 18:8)

1. Glavnyy spetsialist Glavnogo upravleniya nauki, pro-
pagandy i vnedreniya peredovogo opyta Ministerstva
sel'skogo khozyaystva SSSR (for Okulichev). 2. Glavnyy
spetsialist Glavnogo upravleniya po plemennomu delu
Ministerstva sel'skogo khozyaystva SSSR (for Vasil'yev).

Y 34833-65 EPA(s)-2/EWT(m)/EPE(c)/EEC-4/EPR/EWP(j)/T PC-4/Pr-4/PS-4 WW/RM
ACCESSION NR: AP5008538 S/0286/65/000/006/0052/0052

AUTHOR: Snegov, Yu. I.

TITLE: A method for manufacturing light guides from fiberglass. Class 32, No. 169216

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 6, 1965, 52

TOPIC TAGS: light pipe, fiberglass

ABSTRACT: This Author's Certificate introduces a method for manufacturing light guides from fiberglass. The fibers are formed into a bundle and sintered and the bundle is then put into a glass envelope. Light guides with high amplification are produced by reheating the bundle of fibers after sintering and rolling it in the heater state between three symmetrically placed rollers. The Author's Certificate also covers a modification of this method in which the heated bundle is rolled between cleats.

ASSOCIATION: none

SUBMITTED: 22Nov63

ENCL: 00

SUB CODE: MT,IE,OP

Card 1/2

VERESHCHAGIN, L.F.; SNEGOVA, A.D.; LITVIN, Ye.F.

Effect of high pressure on the function of molecular weight
distribution of polystyrene. Dokl.AN SSSR 95 no.3:563-565 Mr '54.
(MLRA 7:3)

1. Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk
SSSR. 2. Moskovskiy gosudarstvennyy universitet im. M.V.Lomo-
nosova. Predstavleno akademikom A.N.Frumkinym.
(Molecular weights) (Polystyrene)

SNEGOVA, A. D.

USSR/Chemistry - Organic chemistry

Card 1/2 Pub. 22 - 20/47

Authors : Petrov, A. D., Memb., Corresp. of Acad of Sc. USSR.; Ponomarenko, V. A.; Mkhitaryan, L. L.; and Snegova, A. D.

Title : Synthesis and properties of monochloro derivatives of ethylsilane chlorides.

Periodical : Dok. AN SSSR 100/6, 1107-1110, Feb 21, 1955

Abstract : The synthesis of numerous hitherto unknown compounds from monochloro derivatives of ethylsilane chlorides is reported. The high yield of monochloro derivatives observed during the chlorination of ethylsilane chlorides with chlorine indicates the photochemical chlorine chlorination is no less suitable than the chlorination with sulfuryl chloride.

Institution : Academy of Sciences USSR, The N. D. Zelinskiy Institute of Organ. Chem.

Submitted : August 18, 1954

Periodical : Dok. AN SSSR 100/6, 1107-1110, Feb 21, 1955

Card 2/2 Pub. 22 - 20/47

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651810008-1"

Abstract : The formation of small amounts of alpha-chloroethyldichlorosilane with highly reactive Si-H bond was observed during the chlorination of ethyldichlorosilane ($\text{Cl}_2\text{HSiC}_2\text{H}_5$). Ten references: 3 USSR, 5 USA, 1 English and 1 German (1937-1954). Table; graphs.

USSR/Physical Chemistry - Molecule, Chemical Bond.

B-4

Abs Jour : Referat Zhur - Khimiya, No 1, 1958, 140

Author : M.I. Batuyev, V.A. Ponomarenko, A.D. Matveyeva, A.D. Snegova.

Inst : Academy of Sciences of USSR

Title : Cis-Trans-Isomerism of 1,2-Di-(Trichlorsilyl) Ethylene.

Orig Pub : Izv. AN SSSR, Otd. Khim. n., 1956, No 11, 1420-1421

Abstract : Cis- and trans-isomers of 1,2-di--(trichlorsilyl) ethylene (I) were detected by the spectrum of multiple scattering. The range width (43 cm^{-1}) between the determined frequencies of double links C C of the cis- and trans-isomers of I, unusual as compared with cis- and trans-isomers of other compounds, was noted.

Card 1/1

USSR/Physical Chemistry - Molecule, Chemical Bond.

B-4

Abs Jour: Referat. Zhurnal Khimiya, No 3, 1958, 6979.

Author : M.I. Batuyev, V.A. Ponomarenko, A.D. Matveyeva, A.D. Snegova.

Inst : Academy of Sciences of USSR.

Title : Optical Investigation of Intermolecular Interaction Si...Cl.

Orig Pub: Izv. AN SSSR. Otd. khim. n., 1957, No 4, 515-516.

Abstract: Blurring of lines referred to the valence vibrations C-Cl (722 cm^{-1}) and Si-Cl (448 cm^{-1}) was observed in the Raman spectrum of the silico-organic β -halide $\text{Cl}_3\text{SiCH}_2\text{CH}_2\text{Cl}$. This blurring disappears in cyclohexane solution. Also, it is not observed in compounds of the $\text{Cl}_3\text{Si-CH}_2\text{CH}_2\text{CH}_2\text{Cl}$, $\text{Cl}_3\text{Si-CH}_2\text{-CH}_2\text{-SiCl}_3$, $\text{Cl}_3\text{Si-CH}_2\text{CH}_2\text{CH}_3$ and other types. This phenomenon is explained by the existence of molecular associations caused by an interaction analogous to the hydrogen bond. An easy ethylene and SiCl_4 formation is observed just in the case of the β -halide.

Card : 1/2

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Card : 2/2

-23-

SNEGova, A.D.

Distr: 4E4j/4E2c(j)/
4E3d

* Chlorination and bromination of phenyltrichlorosilane and the Raman spectra of halo-substituted phenyltrichlorosilanes. A. D. Petrov, M. I. Batuev, V. A. Ponomarenko, A. D. Snegova, A. D. Matveeva, and B. A. Sorokan (Inst. Org. Chem., Acad. Sci. U.S.S.R., Moscow). *Zhur. Obshch. Khim.* 27, 2037-61 (1957); *Ch. C.A.* 50, 14604k. — Chlorination of PhSiCl_3 in the presence of ultraviolet light gave a mixt. of 25% *o*-, 60% *m*-, and 15% *p*- $\text{ClC}_6\text{H}_4\text{SiCl}_3$ isomers. Chlorination at 70° in the presence of powd. Fe gave a mixt. of isomers which after careful distn. were found to be 24% *o*-isomer, 74% *m*-isomer, and 2% *p*-isomer (cf. Yakubovich and Motsarev, *C.A.* 50, 13784c), as well as a *dichloro deriv.* of undetd. structure, b_{max} 264.5–4.8°, d_n 1.5523, n_D^{20} 1.5641. Bromination of PhSiCl_3 in the presence of powd. Fe at $62-5^\circ$ gave 31% *o*- $\text{BrC}_6\text{H}_4\text{SiCl}_3$, 31% *m*-isomer, and 38% *p*-isomer. Pure substances, prepd. by the Grignard route were found to have the following characteristics: *o*- $\text{ClC}_6\text{H}_4\text{SiCl}_3$, b_{max} 240.5°, d_n 1.4629, n_D^{20} 1.5510, Raman spectrum in cm^{-1} 157(4), 188(7), 207(5), 263(2), 319(5), 353(0), 385(6), 438(9), 528(4), 571(3), 590(3), 601(3), 618(3), 666(4), 685(0), 710(0), 750(0), 809(0), 895(0), 1039(10), 1123(5), 1137(2), 1164(4), 1255(0), 1279(1), 1355(0), 1423(0), 1457(0), 1561(2), 1584(6), 2065(2), 2987(2), 3060(9), 3121(3), 3161(1). *m*-Isomer, b_{max} 230.5°, 1.4384, 1.4521, Raman spectrum 155(7), 184(6), 193(5), 231(4), 248(4), 340(9), 350(9), 427(4), 518(6), 578(3), 599(3), 608(3), 620(1), 670(4), 700(0), 996(10), 1029(2), 1079(3), 1102(1), 1117(1), 1138(5), 1178(2), 1247(0), 1296(3), 1390(3), 1428(0), 1563(3), 1585(7), 3062(9), 3077(1), 3119(3), 3163(2).

8
2
3 May

1/2

A. D. Petrov, M. L. Baturin, ...

p-Isomer, b_{11g} : 232.5°, 1.4316, 1.5418, Raman spectrum
172(6), 190(3), 243(1), 316(6), 340(2), 369(0), 452(8),
578(4), 598(2), 600(2), 621(0), 634(2), 719(0), 754(4),
1067(2), 1091(10), 1119(10), 1160(0), 1191(3), 1224(0),
1273(0), 1307(2), 1386(0), 1416(0), 1568(1), 1588(10),
2864(1), 2917(1), 2986(1), 3032(1), 3047(3), 3065(8),
3135(1), 3158(2). *o*-Br $C_6H_4SiCl_3$, b_{11g} : 261-1.5°, 1.6956,
1.5710, Raman spectrum 87(6), 108(5), 141(3), 184(4),
198(3), 263(2), 285(3), 373(10), 521(4), 579(3), 589(3),
601(3), 623(1), 654(4), 1028(3), 1043(9), 1115(4), 1132(4),
1168(5), 1249(1), 1275(1), 1298(1), 1398(1), 1424(1),
1557(4), 1581(8), 1610(0), 1634(0), 2227(0), 2368(0),
2907(0), 2927(0), 2971(0), 3050(4), 3062(7), 3077(3),
3087(0), 3120(2), 3140(0), 3157(1). *p*-Isomer, b_{11g} : 251.4-
1.7°, 1.6484, 1.5635, Raman spectrum 154(5), 180(3),
221(2), 244(0), 262(0), 282(6), 304(4), 319(2), 409(8),
547(7), 582(3), 595(3), 607(3), 622(1), 633(3), 714(0),
739(6), 1071(10), 1112(4), 1123(5), 1191(5), 1251(1),
1306(1), 1355(0), 1393(0), 1416(0), 1547(0), 1577(10),
1607(0), 1627(0), 1643(0), 2855(1), 2959(3), 3001(2),
3024(2), 3046(6), 3064(10), 3082(3), 3102(3), 3163(3).
The amt. of *m*-Br isomer stated above was detd. by differ-
ence.

G. M. Kosolapoff, 2/2

8
2 May
3

PONOMARENKO, V.A.; SNEGOVA, A.D.

Photochemical chlorination of ethylsilane fluorides. Orienting
effect of fluorosilyl groups. Zhur. ob. khim. 27 no.8:2067-2073
Ag '57. (MLRA 10:9)

1. Institut organicheskoy khimii Akademii nauk SSSR.
(Fluorine organic compounds)

5 NEGOVA, A.D.

✓ Synthesis and properties of some organosilicon β -alcohols
(β -hydroxyalkyltrimethylsilanes). A. D. Petrov, V. A.
Ponomarenko, and A. D. Saegeva (N. D. Zelinskii Inst.
Org. Chem., Moscow). *Doklady Akad. Nauk S.S.S.R.*
112, 78-82 (1957). — To Grignard reagent from 60 g. $\text{Me}_3\text{SiCH}_2\text{Cl}$ in Et_2O was added 35 g. MeEtCO giving, after 4
hrs. refluxing and the usual aq. treatment, unresolved low
boiling material and 10 g. 1- and 2-unsatd. $\text{Me}_3\text{SiC}_2\text{H}_4$,
 b_p 57°, d_4 0.7020, n_D^{20} 1.4320, showing in the Raman spec-
trum lines at 1665, 1166, 1362, 1540 cm^{-1} ; also isolated
was some 1.9% $\text{Me}_3\text{SiCH}_2\text{CHMeEtOH}$, b_p 52°, 0.8451,
1.4410. The above Grignard reagent and HCO_2Et similarly
gave 7.9% $(\text{Me}_3\text{SiCH}_2)_2\text{CHOH}$, b_p 74.5°, 0.8369, 1.4401,
and $\text{Me}_3\text{SiCH}_2\text{CH}:\text{CH}_2$. The Grignard reagent and CCl_3CHO
gave 17% $\text{Me}_3\text{SiCH}_2\text{CH}(\text{OH})\text{CCl}_3$, b_p 87-8°, d_4
1.1730, n_D^{20} 1.4700. The Grignard reagent and benzil gave
69.5% $\text{Me}_3\text{SiCH}_2\text{CPh}(\text{OH})\text{Ph}$, m. 92-3°. — G. M. K.

PM
MTT

SCV/62-58-8-13/22

AUTHORS: Batuyev, M. I., Ponomarenko, V. A., Matveyeva, A. D.,
Snegova, A. D.

TITLE: The Optical Investigation of the C - H Bond of Some Alkyl
 Silane and Disilane Chlorides and Their Chlorine Derivatives
 as Related to the Properties of Their Chlorination (Opticheskoye
 issledovaniye svyazi C - H nekotorykh alkilsilan- i disilan-
 khloridov i ikh khlorproizvodnykh v svyazi s osobennostyami ikh
 khlorirovaniya)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk,
 1958, Nr 8, pp. 996-1003 (USSR)

ABSTRACT: The chlorination of methyl silane and chloromethyl silane
 chlorides with simultaneous irradiation was first carried out
 by Kriebble and Elliot (Kriebble and Elliot) and later on it was
 investigated in detail by Speier (Speyer, Refs 2-4). Then some
 phenomena of specifically anomalous character were found. In
 the present paper the authors report on the result of their
 investigation of the C - H bond as well as of some alkyl
 silane and disilane chlorides. It turned out that along with the
 increase in number of the chlorine atoms in silicon and in the

Card : 2

SOV/62-58-8-13/22

The Optical Investigation of the C - H Bond of Some Alkyl Silane and Disilane Chlorides and Their Chlorine Derivatives as Related to the Properties of Their Chlorination

alkyl chains of the alkyl silane chlorides a regular increase of the effective electron density of the corresponding C - H bonds takes place. The anomalies in the chlorination of methyl silane chloride and chloromethylsilane chloride found by other authors could not be proved by the authors. Perhaps the direction taken by the mentioned chlorination could be called an anomalous phenomenon. It is assumed that this direction is caused by spatial hindrances which complicate the whole process. There are 7 tables and 8 references, 4 of which are Soviet.

ASSOCIATION: Institut goryuchikh iskopayemykh i Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Mineral Fuels and Institute of Organic Chemistry named N. D. Zelinsky, AS USSR)

SUBMITTED: January 25, 1957

Card 2/2

REF ID: A66457
SER 82-62-1-128-57

AUTHORS: Ponomarenko, V. A., Snegova, A. D.

TITLE: Brief Communications. Synthesis of Organosilicon Monomers From Hexachlorocyclopentadiene and 5,5-Difluorotetrachlorocyclopentadiene

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1960, Nr 1, pp 135-138 (USSR)

ABSTRACT: Preparation of organosilicon monomers (see Table 3) from hexachlorocyclopentadiene (I) and 5,5-difluorotetrachlorocyclopentadiene (II) by Diels-Alder reaction was studied. It was found that II reacts more readily than I, with vinyl- and allylchlorosilanes in the Diels-Alder reaction, particularly when the silicon is bound to hydrogen. There is a difference between ~~the~~ experimentally determined and calculated molar refractions for the compounds obtained (see Table 3). Using the experimental data, more accurate group refractive indexes were calculated for the bonds shown in Table 1.

Card 1.8

Brief Communications. Synthesis of Organo-silicon Monomers From Hexachlorocyclopentadiene and 5,5-Dichlorotetrachlorocyclopentadiene

58302

SOV 62-60-1-28/37

The starting compounds and the conditions of reaction are shown in Table 2. The new compounds obtained and their characteristics are given in Table 3. There are 3 tables; and 8 references, 4 U.S., 2 U.K., 1 German, 1 Soviet. The 5 most recent U.S. and U.K. references are: 1. Goodman, R. M. Silverstein, J. W. Gould, J. Organ. Chem. 22, 596 (1957), British Patent 776706 (1957); M. Kleiman, U.S. Patent 2697089 (1954); C. W. Roberts, Chem. and Ind., 111 (1953); E. I. McBee, D. K. Smith, H. E. Ungnade, J. Am. Chem. Soc., 77, 387 (1955).

ASSOCIATION: N. D. Zelinskiy Institute of Organic Chemistry, Academy of Sciences USSR (Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR)

SUBMITTED: June 15, 1959
Card 2/8

TABLE 1. SOV/52-00-1-28/37





Key to Table 1. (a) Nrs, (b) group, (c) group refraction, determined experimentally; (d) group refraction, calculated from refractions for the bonds.

(a)	(b)	(c)	(d)
1	1	1.00	1.00
2	2	1.00	1.00
3	3	1.00	1.00
4	4	1.00	1.00
5	5	1.00	1.00
6	6	1.00	1.00
7	7	1.00	1.00
8	8	1.00	1.00
9	9	1.00	1.00
10	10	1.00	1.00
11	11	1.00	1.00
12	12	1.00	1.00
13	13	1.00	1.00
14	14	1.00	1.00
15	15	1.00	1.00
16	16	1.00	1.00
17	17	1.00	1.00
18	18	1.00	1.00
19	19	1.00	1.00
20	20	1.00	1.00
21	21	1.00	1.00
22	22	1.00	1.00
23	23	1.00	1.00
24	24	1.00	1.00
25	25	1.00	1.00
26	26	1.00	1.00
27	27	1.00	1.00
28	28	1.00	1.00
29	29	1.00	1.00
30	30	1.00	1.00
31	31	1.00	1.00
32	32	1.00	1.00
33	33	1.00	1.00
34	34	1.00	1.00
35	35	1.00	1.00
36	36	1.00	1.00
37	37	1.00	1.00

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78002, SOV/Sa-00-1-28/37






Key to Table 2. (a) Nos; (b) starting products; (c) diene; (d) in g; (e) dienophile; (f) reaction temperature in °C; (g) reaction time in hr; (h) weight of the products of reaction, in g; (i) yield of product of diene-synthesis; (*) compounds prepared by G. V. Oda-bashyan.

(a)	(b)			(c)	(d)	(e)	(f)	(g)	(h)	
	(c)	(d)	(e)						(i)	(j)
1		54,8	CH ₂ =CHSCL ₂	33,2	199	6,5	83,7	42,7	49,0	
2		3,5	CH ₂ =CHSCL ₂	2,4	130--150	5,3	5,9	3,3	36,0	
3		54,8	CH ₂ =CHSCL ₂ CH ₃	28,2	138--190	3,25	79,4	59,8	72,4	
4		2,7	CH ₂ =CHSCL ₂ CH ₃	1,6	105--150	8	4,1	---	---	

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78082, SOV/62-60-1-28/37


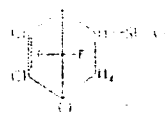

Table 2. (Cont'd.)

5		4,1	$\text{CH}_2=\text{CH}-\text{SiCl}_2$ C_2H_5	2,3	146,5-202	4,2	6,0	3,2	50,0
6		9,8	$\text{CH}_2=\text{CH}-\text{SiCl}_2$ H	5,2	137-194	1,6	12,2	—	—
7		6,8	$\text{CH}_2=\text{CH}-\text{CH}_2\text{SiCl}_2$ H	3,5	123-134	3,75	8,8	4,3	41,7
8		5,4	$\text{CH}_2=\text{CH}-\text{CH}_2\text{SiCl}_2$ H	3,2	128-250	1,8	7,8	4,2	48,6
9		3,5	$\text{CH}_2=\text{CH}-\text{SiCl}_2$ CH_3 H	1,6	72-152	0,8	4,7	2,9	56,8

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78082, 304/60-60-1-28/37

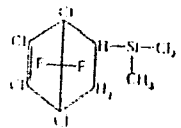
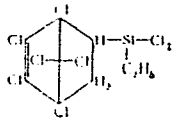
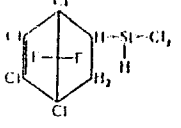
Key to Table 3. (a) Hrs; (b) compound; (c) bp in ° C
(pressure in mm of Hg); (d) found; (e) calculated.

(a)	(b)	(c)	n_D^{20}	d_4^{20}	MR	
					(d)	(e)
1		138 (2)	1.5573	1.7362	80.56	81.26
2		130 (10)	1.5444	1.7099	71.05	71.64
3		136-137 (2)	1.5539	1.6457	80.47	81.63

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Table 3 (Cont'd)

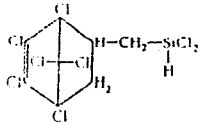
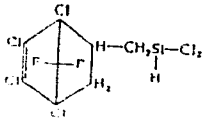
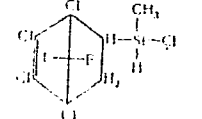
78082, SOV/62-60-1-28/37

4		130 (8)	1,5120	1,6041	71,25	72,01
5		160 (7)	1,5520	1,6065	85,10	86,26
6		98 (10)	1,4326	1,4474	65,83	67,64

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Table 3 (Cont'd)

78082, SOV/62-60-1-28/37

7		152 (6)	1,5500	1,6370	80,53	81,89
8		102-103(2,5)	1,5110	1,5982	71,40	72,27
9		122 (8)	1,5066	1,5355	67,12	68,01

Card 8/8

5 3706

AUTHORS:

Ponomarenko, V. A., Snegova, A. D., Yegorov, Yu. P.

TITLE:

Direction of the Chlorination and Bromination of Phenyl
Silanes Containing SiF_3 and $\text{Si}(\text{CH}_3)_3$ Groups

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh
nauk, 1960, No. 2, pp. 244 - 250

TEXT: The following substances were investigated: $(\text{CH}_3)_3\text{Si}-\text{C}_6\text{H}_5$,

$\text{Cl}-\text{C}_6\text{H}_4-\text{SiCl}_3$, $\text{Cl}_3\text{Si}-\text{C}_6\text{H}_5$, $\text{F}_3\text{Si}-\text{C}_6\text{H}_5$, $\text{F}_3\text{Si}-\text{C}_6\text{H}_4-\text{Cl}$, $\text{F}_3\text{Si}-\text{CH}_2-\text{C}_6\text{H}_5$.

The halogenation reactions were performed both with and without iron dust catalysts. The resultant products were identified by synthesizing them also by another method and by comparing the Raman spectra. The syntheses and the halogenation of the compounds mentioned are described in detail in the experimental part of the paper. Results: On chlorination of

Card 1/3

Direction of the Chlorination and Bromination
of Phenyl Silanes Containing SiF_3 and

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S/062/60/000/02/06/012
B003/B066

$\text{Si}(\text{CH}_3)_3$ Groups

$(\text{CH}_3)_3\text{Si}-\text{C}_6\text{H}_5$ in the presence of metallic iron, the $(\text{CH}_3)_3\text{Si}$ group proves to be directed toward the ortho- and para-positions. Substitution of the more electronegative chlorine or fluorine for the CH_3 groups bound to the Si-atom gives substitutions in the meta-position. The chlorination of $\text{Cl}_3\text{Si}-\text{C}_6\text{H}_5$ or $\text{Cl}-\text{C}_6\text{H}_4-\text{SiCl}_3$ to dichlorides yields a mixture of reaction products under the given conditions. On photochemical chlorination of $(\text{CH}_3)_3\text{Si}-\text{C}_6\text{H}_5$ in the absence of iron dust only the H-atoms at the CH_3 groups are substituted, whereas the phenyl radical remains unchanged. Contrary to the trichloro silyl group, the F_3Si group and other groups which are directly linked by the Si-atom to the aromatic ring are rather easily split from the ring on chlorination or bromination. This behavior is apparently due to the steric or inductive effect caused by the substituents on the Si-atom and to the course of the reaction according

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Direction of the Chlorination and Bromination
of Phenyl Silanes Containing SiF_3 and
 $\text{Si}(\text{CH}_3)_3$ Groups

82043
S/062/60/000/02/06/012
B003/B066

to the ionic mechanism. There are 1 figure, 1 table, and 8 references:
4 Soviet and 4 American.

ASSOCIATION: Institut organicheskoy khimii im. M. D. Zelinskogo Akademii
nauk SSSR (Institute of Organic Chemistry imeni M. D.
Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: July 12, 1958 (initially)
November 21, 1959 (after revision)

✓

Card 3/3

MAYRANOVSKIY, S.G.; PONOMARENKO, V.A.; BARASHKOVA, N.V.; SNEGOVA, A.D.

Polarographic study of iodomethyltrialkylsilanes. Unusual
polarographic maximum on the iodomethylphenyldimethylsilane.
Dokl.AN SSSR 134 no.2:387-390 S '60. (MIRA 13:9)

1. Institut organicheskoy khimii im. N.D.Zelinskogo Akademii
nauk SSSR. Predstavleno akademikom A.A.Balandinym.
(Silane)

86395

5.3700

2209

S/020/60/135/002/022/036
B016/B052

AUTHORS: Ponomarenko, V. A., Snegova, A. D., Pitina, M. R., and Petrov, A. D., Corresponding Member of the AS USSR

TITLE: High-temperature Chlorination of Phenyl Trichlorosilane

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 2, pp. 339 - 341

TEXT: The authors report on high-temperature chlorination (200-500°C) of phenyl trichlorosilane. This reaction has not been described so far. The principal aim of their work was to study the possibility of using a continuous process and determine the quantitative proportion of the ortho-, meta-, and para-isomers formed. The first experiments made in a tube filled with quartz, gave a 19% yield of monochloro derivatives referred to the amount of initial substance passed through, or a 58% yield referred to the reacting phenyl trichlorosilane. The quantitative proportion of the isomers obtained is given as o-: m-: p- = 22 : 39 : 39. This indicates that the meta-orientating property of the SiCl_3 group

Card 1/2

86395

High-temperature Chlorination of Phenyl
TrichlorosilaneS/020/60/135/002/022/036
B016/B052

(Ref.2) has no effect. The amount of the meta-isomer in the mixture hardly changes with an increase of temperature up to 450°C, although the quantitative proportion of ortho- and para-isomers changes in favor of ortho-chlorophenyl trichlorosilane. The application of activated carbon instead of quartz hardly affects the quantitative proportion of the isomers at equal temperatures, although the reaction sets in at lower temperatures and is accompanied by a slight destruction of phenyl trichlorosilane on the Si-C bond. Furthermore, it is shown that dimethyl dichlorosilane mixed with SiCl₄ is easily chlorinated on both activated carbon and quartz at 250-400°C. In all cases, a considerable cleavage of the Si-C bond took place, and di- and trichlorides were formed. High-temperature chlorination is thought to be a homolytic reaction, and the changed quantitative proportion of the isomers (like in high-temperature halogenation of chloro- and bromobenzenes) is due to the temperature-dependent change of activation energy in the chlorination of the various positions on the benzene ring. There are 2 tables and 8 references: 4 Soviet, 3 US, 1 British, and 1 Dutch. X

SUBMITTED: August 11, 1960

Card 2/2

SNEGOVA, A. D., Cand. Chem. Sci. (diss) "Synthesis and Properties of Halogen-Containing of Silicon-Organic Compounds," Moscow, 1961, 15 pp (Moscow Chem. Engr. Instit.) 175 copies (KL Supp 12-61, 256-257).

SOBOLEVSKIY, M.V.; RODZEVICH, N.Ye.; GRINEVICH, K.P.; PETROV, A.D.;
PONOMARENKO, V.A.; SNEGOVA, A.D.

Preparation and properties of organosiloxanes containing
hexachlorobicycloheptyl radicals. Zhur.prikl.khim. 35
no.10:2302-2307 0 '62. (MIRA 15:12)
(Silicon organic compounds)

SNEGOVA, A.D.; MARKOV, L.K.; PONOMARENKO, V.A.

Use of gas-liquid chromatography in the analysis of halogen-containing organosilicon and organogermanium compounds. Zhur. anal. khim. 19 no.5:610-614 '64. (MIRA 17:8)

1. Institut organicheskoy khimii AN SSSR imeni Zelinskogo, Moskva.

PONOMARENKO, V.A.; SNEGOVA, A.D.; SFIGEYEV, I.A.

Preparation of fluoroarylsilanes by high temperature
condensation. Izv. AN SSSR. Ser. khim. no.9:1684-1687 '65.
(MIRA 18:9)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

MOTSAREV, G.V., ZAKHARCHUK, A.Ya.; PONOMARENKO, V.A.; SNEGOVA, A.D.;
IVANOVA, T.M.

Substitution chlorination of phenyltrichlorosilane. Zhur. ob. khim.
35 no. 4:756-757 Ap '65. (MIRA 18:5)

MOTSAREV, G.V.; YAKUBOVICH, A.Ya.; PONOMARENKO, V.A.; SNEGOVA, A.D.;
IVANOVA, T.E.

Substitution chlorination of phenyltrichlorosilane. Zhur.ob.khim.
35 no.12:2167-2176 D '65. (MIRA 19:1)

1. Submitted July 8, 1964.

SNEGOVY, V., zasluzhennyy zootekhnik RSFSR (Stavropol'skiy kray,
sovkhoz "Sovetskoye runo").

Lambs are born during the winter. IUn. nat. no.6:15 S '56.
(MLRA 9:10)

(Lambs)

ACC NR: AP6022517

(N)

SOURCE CODE: UR/0391/66/000/007/0013/0017

AUTHOR: Drogichina, E. A. (Moscow); Sadchikova, M. N. (Moscow); Snegova, G. V. (Moscow); Konchalovskaya, N. M. (Moscow); Glotova, K. V. (Moscow)

ORG: Institute of Industrial Hygiene and Occupational Diseases, AMN SSSR (Institut gigiyeny truda i profzabolevaniy AMN SSSR)

TITLE: The problem of autonomic and cardiovascular disorders during the chronic action of SHF electromagnetic fields

SOURCE: Gigiyena truda i professional'nyye zabolevaniya, no. 7, 1966, 13-17

TOPIC TAGS: hemodynamics, human physiology, SHF, industrial hygiene, central nervous system, cardiovascular system

ABSTRACT: The authors examined 100 subjects (73 men and 27 women aged 21-40) over a period of 10 years. These personnel had been chronically exposed to the influence of microwaves (intensity up to a few mw/cm^2) and showed some pathologies. Light asthenic and autonomic vascular shifts were characteristic in 39 subjects with initial stages of microwave pathology. Pathological deviations in cardiac function were not noted in these subjects. Of 61 subjects with moderate and pronounced microwave symptoms, the angiodystonic syndrome and pronounced instability of autonomic vascular reactions (predominant hyperreactivity, pulse and arterial pressure lability) were

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UDC: 613.647+617-001.21:583.3]-036.12:[616.839+616.1

L 35864-66

ACC NR: AP6022517

noted. Tachycardia was detected in 16 subjects (90 beats/min or more), and bradycardia in 19 (about 60 beats/min). Capillaroscopy revealed a tendency towards atonic spasm. Constriction of the retinal artery was also noted. The majority of subjects complained of pain in the cardiac region. Most of the changes observed were unstable and with few exceptions disappeared after 1-2 weeks. Two case histories of coronary patients who had been chronically exposed to SHF are presented. In general, these observations showed that upon treatment and release from exposure conditions, functional changes in the nervous system steadily decreased. Autonomic vascular changes were the most persistent symptoms of chronic exposure to SHF. Otherwise, angiodystonic manifestations coupled with EKG changes were pronounced for 2-3 years after curtailment of work around SHF sources. Thus, clinical observations of subjects chronically exposed to SHF indicate that angiodystonic pathology can eventually aggravate the development of more severe autonomic and cardiovascular pathology. A pronounced SHF effect is characterized by angiodystonic disorders, diencephalic disturbances, and coronary spasms. Orig. art. has: 2 figures. [CD]

SUB CODE: 06/ SUBM DATE: 13Jan66/ ORIG REF: 002/ ATD PRESS: 5037

Card 2/2 *///*

1
SNEGOVSKIY, P. P. Cand Tech Sci -- (diss) "Study of the
Operating Characteristics of Liquid ~~FRICION~~ Friction Bearings of
Rolling Mills." Mos, ~~1956~~ 1957. 20 pp, 1 sheet of diagrams,
20 cm. (Min of Heavy Machine-Building USSR, Central Scientific
Research Inst of Technology and Machine Building TsNII TMash),
100 copies (KL, 18-57, 96)

- 32 -

SNEGOVSKIY, F.P., inzhener.

Investigation of the working characteristics of sliding friction
bearings. Vest.TSNII MPS no.2:35-38 Mr '57. (MLRA 10:4)
(Bearings (Machinery))

122-3-4/50

AUTHOR: Al'shits, I.Ya., Candidate of Technical Sciences and
Snegovskiy, F.P., Engineer.

TITLE: The Use of Fluid Friction Bearings Faced with Textile Waste
in Rolling Mills (Primeneniye oblitsovannykh tekstil'noy
kroshkoy podshipnikov zhidkostnogo treniya v prokatnykh stanakh)

PERIODICAL: Vestnik Mashinstroyeniya, 1957, No. 3, pp. 20-23 (USSR)

ABSTRACT: In recent years, in some rolling mills of the "Krasnyy
Vyborzhets" plant, the bronze and U AM 10-5 alloy sleeves of the
roll bearings were replaced by steel bearing liners faced with
a thin layer of textile waste, resulting in a reduction of the
power consumption and an increased load capacity; the number of
passes and the output of the rolling mill could be increased by
40%. Tests carried out in the bearing and lubricating laboratory
of the TsNIITMASH Institute with textile waste faced bearing
liners lubricated with water or oil established the equivalence
of such facings with those of cloth or wood laminated plastic
materials. An excessive deformation was found, however, and
some cracks developed. Further tests are reported in the present
paper. The facing material was textile waste impregnated with
bakelite lacquer and pressed into briquettes at a specific
pressure of 30-40 kg/cm². The briquettes are placed in a thick-
walled hopper cylinder heated by an electrical resistance coil

122-3-5/30

The Use of Fluid Friction Bearings Faced with Textile Waste in Rolling Mills.

under a pressure of 6 kg/cm^2 . The softened mass is injected through a hole into the clearance between the bearing sleeve placed inside another heated cylinder and a special internal core forming part of the mould. During injection, the pressure in the clearance reaches 400 kg/cm^2 . At a temperature of 150°C , polymerisation of the bakelite lacquer is achieved after about 20 minutes. The test rig for the bearing liner was designed for bearings of 180 mm dia. and a length to diameter ratio of 0.75. Bearing pressures of up to 200 kg/cm^2 and sliding speeds of up to 10 m/sec could be reached. The test rig is illustrated and a diagram of the lubrication system is shown. The working portion of the test rig consists of a short stepped shaft of which the thick portion runs in the tested bearing. The shaft is supported by self-aligning barrel roller bearings. The tested bearing is inserted in a loaded block with means for bearing lubrication. The oil pressure was held at 0.5 kg/cm^2 ; the oil entry temperature at 30°C . The temperature of the oil layer in the bearing was measured by a thermocouple. The friction coefficient and the bearing load were measured, the latter by means of strain gauge load capsules. Graphs of friction coefficient against bearing load at different speeds and against

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AUTHOR: Snegovskiy, F.P., Engineer.

122-4-2/29

TITLE: Analysis of oil flow through fluid friction bearings
(applicable to rolling mills). (Raschet prokachki masla
cherez podshipniki zhidkostnogo treniya)

PERIODICAL: "Vestnik Mashinostroeniya" (Engineering Journal), 1957,
No.4, pp. 10 - 19 (U.S.S.R.)

ABSTRACT: Tests carried out by the TsNIITMASH Institute in various Soviet rolling mills between 1953 and 1956 on the lubricating oil through-put of roll bearings are reported. The loads were kept constant in magnitude and direction. The contours of bearing clearances and of oil pressures around the pin were obtained from measurements. The bearing clearance was measured by the condenser method, the oil thickness acting as the insulator between the earth of the bearing sleeve and an insulated electrode attached to the pin. A special amplifier working on the capacitor principle was developed for this purpose. Pressures were measured by capsules attached to the pin which transformed the pressure into the electrical signal of a resistance wire strain gauge. Measurements carried out on a journal of 180 mm dia., a length of 3/4 dia., and a relative clearance 1/3 of 0.25% with circulating machine oil, at various specific loads of 25-100 kg/cm² and speeds of 1-11 m/sec show minimum

Analysis of oil flow through fluid friction bearings
(applicable to rolling mills). (Cont.) 122-4-2/29

oil film thicknesses between 2 and 8 microns and an arc of carrying oil film from 95° down to 65° at the highest load. The friction coefficients range between 0.0017 and 0.0024. Comparison of the experimental values with those calculated in accordance with E.S. Kodnir (Abanov, L.V., Al'shits, I.Ya., Kodnir, D.S. et al. "Fluid friction bearings for rolling mills", Mashgiz, 1956.) shows that the calculated clearance values are between 1.88 and 3.7 times greater than the measured values. The measured relative eccentricity in the bearing is always greater than the calculated and amounted to no less than 0.965. An oscillographic record of the pressure distribution over the angle is reproduced showing a maximum pressure 2.56 times the mean pressure. Confirming the tests of Parish (Orlov, P.I. "The lubrication of light engines", ONTI, 1937), the circulation of oil through the end of the bearing is relatively small and can be computed on the assumption of flow caused only by the supply pressure of the oil. From the present tests, expressions are developed for the through-put of oil. The total through-put expression contains coefficients which are computed and presented in graphs. A parameter is formulated which represents the oil through-put capacity of the bearing

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Snegovskiy, F.P. 32-11-43/60
AUTHORS: Al'shits, I.Ya., Malykh, L.I., Snegovskiy, F.P.
TITLE: Devices for Testing the Friction Bearings and the Anti-Friction Properties of Materials (Ustanovki dlya ispytaniya podshipnikov skol'sheniya i antifriktsionnykh svoystv materialov)
PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 11, pp. 1380-1383 (USSR)
ABSTRACT: In this paper 2 such devices are described and their operation is explained. According to the scheme mentioned, the first of these devices consists of a firmly mounted frame with 2 bearings in which a shaft moves in 2 bearings (in a horizontal position). On this shaft, in the center of the frame, a conical sleeve is mounted, above which the third bearing is located, which is not fixed but can be moved downwards by means of a lever system. The other end of this lever is provided with a hard spiral which can be tightened by hand by means of a winged nut or by means of a motor, which can be recorded on the scale at the end of the spiral. Pressure brought to bear upon this spring causes traction to act upon the bearing in the center of the frame. Into this bearing samples of the substance to be tested are inserted. The aforementioned shaft is connected with another shaft by means of an elastic coupling, upon which the (freely mounted) reaction motor is located. It is connected with the base plate by means of a draw spring. The centrifugal force

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Devices for Testing the Friction Bearings and the Anti-Friction Properties of Materials

32-11-43/60

of the motor causes the spring to be strained, which can be seen from the reading of a corresponding scale. The motor shaft is firmly mounted on the base plate by 2 bearings in 2 solid brackets. The machine is of the "LTC" type and has a special lubrication system. The second test suggested here is used for testing bearings of 180-275 mm diameter up to a pressure stress of 200 kg/cm² and 15 m/sec. The bearing part under investigation in this case is of box shape. The horizontal shaft of the testing device is connected with the motor shaft by means of an elastic coupling and has a conically widened part in its middle part over which the box to be tested is placed. The shaft itself is firmly mounted in 2 solid bearings; the middle bearing is movable in a vertical direction, and while in operation it is pressed upwards by a strong vertical propeller shaft. The motion of the latter is caused by hand by means of a lever and a pair of bevelled gears. As this shaft operates only on a very short stretch because of the pressure exercised on the bearing to be tested, this work can easily be performed by hand. Exact technical data are given. There are 3 figures.

ASSOCIATION: Central Scientific Research Institute for Technology and Machine Building (Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya)
 AVAILABLE: Library of Congress
 Card 2/2

SNEGOVSKIY, F.P., inzh.

Thermal calculation of sliding fluid friction bearings (applicable
to rolling mills). Vest. mash. 37 no.8:15-20 Ag '57. (MLRA 10:9)
(Bearings (Machinery)) (Rolling mills)

SNEGOVSKIY, F.P., kand.tekhn.nauk

~~Experimental~~ determination of hydrodynamic pressures and thicknesses
of lubricant layers in lubricated sliding bearings. [Trudy] TSNIITMASH
no.90:48-75 '58. (MIRA 11:10)
(Lubrication and lubricants) (Bearings (Machinery))

SNEGOVSKIY, F.P., kand.tekhn.nauk

Thermal calculation of lubricated sliding bearings. [Trudy] TSNIITMASH
no.90:76-108 '58. (MIRA 11:10)
(Bearings (Machinery))

SOV/122-59-3-6/42
AUTHOR: Snegovskiy F.P., Candidate of Technical Sciences
TITLE: Tests on Sliding Bearings with Fluid Friction (Ispytaniya podshipnikov skol'zheniya zhidkostnogo treniya)
PERIODICAL: Vestnik Mashinostroyeniya, 1959, Nr 3, pp 23-25 (USSR)
ABSTRACT: Tests on bearings with aluminium, iron or bronze (Br.AZh 9-4) inserts to determine the true friction coefficients and establish the condition of fluid friction were carried out on a test-stand, described by Al'shits, I.Ya. et al (Zavodskaya Laboratoriya, 1957, Nr 11). The bearings had a nominal diameter of 120 mm, relative clearances of 0.00256 and 0.00220 and a relative length (both referred to the diameter) of 0.75. The bronze sleeve and steel journal were machined to the 8th grade of surface finish. MK-22 oil was used for lubrication. Within a range of surface speeds of 2.5-6 m/sec and specific pressures up to 50 kg/cm², fluid friction with coefficients of 0.001-0.0046 was observed. Fig 1 shows that the oil flow depends linearly on the oil pressure before the bearing. The oil flow, friction coefficient and mean insert temperature at a depth of 0.5-1 mm depend linearly on the journal surface speed

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SOV/122-59-3-6/42

Tests on Sliding Bearings with Fluid Friction

(Fig 4). There is an optimum oil flow which ensures the continuity of the oil film without excessive friction coefficient. Bearings with babbit metal inserts (made by the "Elektrostal'tyazhmashzavod" Works) of 180 mm diameter, 0.75 relative length, 0.00255 relative clearance, were tested in a specific load region of 0.5-100 kg/cm² and at surface speeds of 1 - 11 m/sec. Additional tests were made with a relative clearance of 0.00122 and also with a bearing diameter of 275 mm. The tests are summarised in a plot of the ratio of the friction coefficient and the relative clearance as a function of the non-dimensional load (the total load multiplied by the square of the relative clearance and divided by the bearing length and the viscosity). This plot, illustrated in Fig 3, characterises the behaviour of the bearing. It is emphasised that increasing the oil flow also increases the coefficient of friction in contrast with theoretical predictions. Thus, under the same conditions, an oil flow of 0.1 l/min is associated with a coefficient of 0.0015; an oil flow of 5.6 l/min, with a coefficient

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SOV/122-59-3-6/42

Tests on Sliding Bearings with Fluid Friction

of 0.0028. This dependence is far less pronounced in theory. The experimental coefficients of friction exceed the theoretical by a factor of 3, except at the highest (non-dimensional) load. There are 3 figures and 5 Soviet references.

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SNEGOVSKIY, F.P., kand.tekhn.nauk

Evaluating some methods for designing sliding bearings.
Konstr.i tekhn.mash. no.1:5-28 '61. (MIRA 15:2)
(Bearings(Machinery))

SNEGOVSKIY, F.P., kand.tekhn.nauk

Coefficient of friction and Hersey diagram for fluid-friction
sliding bearings. Konstr.i tekhn.mash. no.1:29-35 '61.

(MIRA 15:2)

(Bearings(Machinery))

SNегоVSKIY, F.P., kand.tekhn.nauk

Testing bearings made of Br.AZh 9-4 bronze. Konstr.i
tekhn.mash. no.1:74-81 '61. (MIRA 15:2)
(Bearings(Machinery)---Testing)
(Aluminum bronze)

SNEGOVSKIY, F.P., kand.tekhn.nauk; POTAPKINA, N.N., inzh.

Performance of capron bearings at high speeds and loads. Mashinostroyeniye no.2:9C-92 Mr-Ap '62. (MIRA 15:4)

1. Nauchno-issledovatel'skiy i proyektno-tekhnologicheskoy institut mashinostroyeniya, g. Kramatorsk.
(Plastic bearings--Testing)

SNEGOVSKIY, F. P., kand. tekhn. nauk; POTAPKINA, N. P., inzh.
SVISTUNOVA, V. P., inzh.

New materials used in friction units of machinery. Vest.
mashinostr. 42 no.12:36-37 D '62. (MIRA 16:1)

(Machinery—Construction)

SNEGOVSKIY, F.P., kand.tekhn.nauk

Investigating liquid-friction bearings of rolling mills on stands
with programmed loading. Vest.mashinostr. 43 no.3:27-30 Mr '63.
(MIRA 16:3)

(Bearings (Machinery)—Testing)

SHCHENKIN, I.P., KULIKOV, A.V.

Machine for testing friction materials for bearings. Dev.
Lab. 30 no.5:614-616 '64. (MIRA 17:5)

1. Kramatorskiy nauchno-issledovatel'skiy i proyektno-
tekhnologicheskii institut mashinostroyeniya.

SNP A.V. 1911, S.P., kard.techn.rank; BUDSKIV, A.M., inzh.

Investigating the performance of packings of rotating shafts.
Vest. mashinostr. 44 no. 4:21-27 Ap '64. (MIRA 17:5)

L 4936-66 EWT(m)/EWP(w)/EPF(c)/T/EWP(t)/EWP(b)/ETC(m) JD/WN/DJ/GS
 AGC NR: AT5022674 SOURCE CODE: UR/0000/65/000/000/0184/0190

AUTHOR: Snegovskiy, F. P.

ORG: Scientific Committee on Friction and Lubrication, AN SSSR (Nauchnyy sovet
 po treniyu i smazkam AN SSSR)

TITLE: Experimental investigation of operating regimes of existing and new fluid
 bearing configurations

SOURCE: AN SSSR. Nauchnyy sovet po treniyu i smazkam. Teoriya treniya i iznosa
 (Theory of friction and wear). Moscow, Izd-vo Nauka, 1965, 184-190

TOPIC TAGS: fluid bearing, hydrodynamic bearing, hydrostatic bearing

ABSTRACT: Experiments were performed on 180- and 275-mm diameter bearings of
 existing construction (see Fig. 1) to determine load capacity at speeds of up to
 60 m/sec, and improved designs were developed. After obtaining preliminary
 temperature and oil leakage data, it was found that the oil circulation in the
 loaded zones was insufficient and resulted in high temperatures. The new designs
 shown in Fig. 2 were tested for load capacity under the loading shown in Fig. 3

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ACC NR: AT5022674

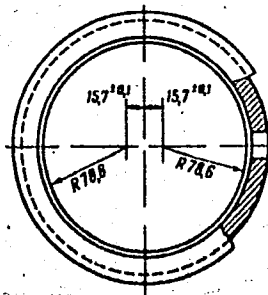
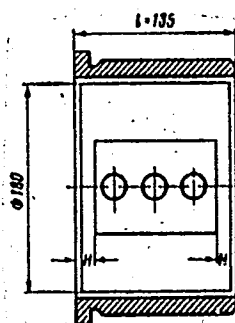
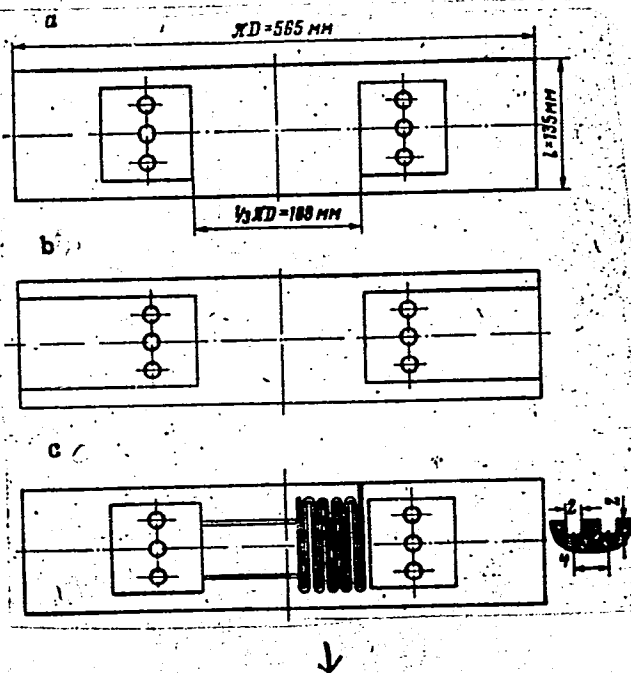


Fig. 1. Normal bearing construction

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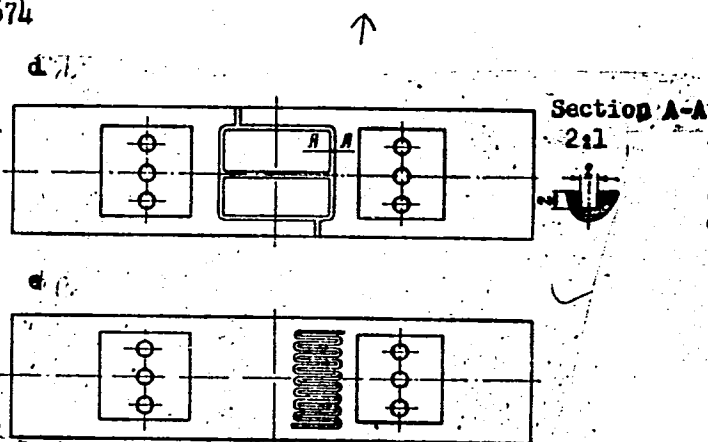


Fig. 2. Rolled-out surfaces of new bearing designs

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ACC NR: AT5022674

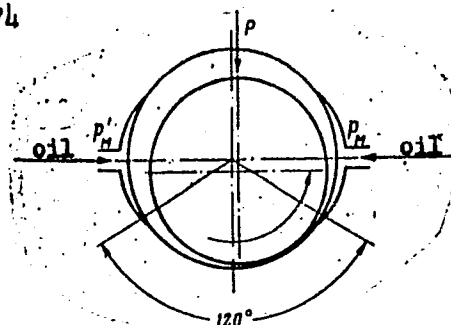


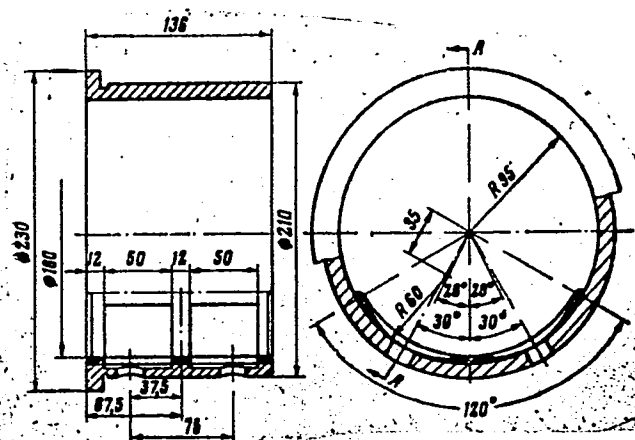
Fig. 3. Experimental loading geometry

to determine the effects of improved oil circulation. The following limiting loads were found: design a (normal design)-- $K = 40 \text{ kg/cm}^2$ at $U = 40 \text{ m/sec}$, $K = 25$ at 50 m/sec ; design b (no improvement); c-- $K = 50$ at $U = 40$; d-- $K = 60$ at $U = 40$, $K = 65$ at $U = 47$; e-- $K = 90$ at $U = 40$ (oil supplied into load zone at high pressure). Comparison with a hydrostatic bearing (see Fig. 4) showed that under the same load conditions the hydrostatic bearing had a lower temperature (55°C at $U = 39$, $K = 46$ and 8.8 liter/min oil flow versus 90°C at 19.2 liter/min flow for the hydrodynamic bearing). Thus it was shown that improved design could substantially improve hydrodynamic bearing performance and that hydrostatic or combinations of

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ACC NR: AT5022674



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ACC NR: AT5022674

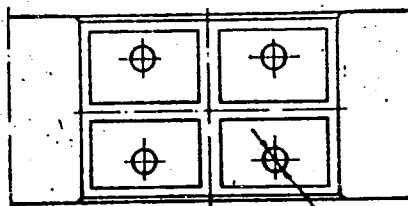


Fig. 4. Hydrostatic bearing

hydrostatic and hydrodynamic bearings could be used for conditions above the range of hydrodynamic bearing operation. Orig. art. has: 6 figures.

SUB CODE: IE, ME/

SUBM DATE: 18May65

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Card 7/7

ENEGOVSKIY, F.P., kand. tekhn. nauk, POLIDOROV, A.V., inzh.; IL'IN, P.I.,
inzh.; VILENKIN, D.M., inzh.

Industrial testing of an ore-crushing ball mill with hydrostatic
bearings. Vest. mashinostr. 45 no. 10:41-42 O '65,
(MIRA 38:11)

SNEGOVSKIY, I.F.

"Sprays for the Protection of Forest Cultures from Pests and Diseases," Les i Step', 1950,
No. 5.

Mikrobiologiya, Vol XX, No. 5, 1951 ●-W-24635

SNEGOVSKIY, I. F. (ENGINEER)

Spraying

Improving feeding mechanisms for farm sprayers. Sel'khoz mashina No. 4, 1952

Monthly List of Russian Accessions, Library of Congress, August 1952. Unclassified.